

California Resources Agency

Offshore LNG Terminal Workshop
Sacramento, CA – June 1 & 2, 2005

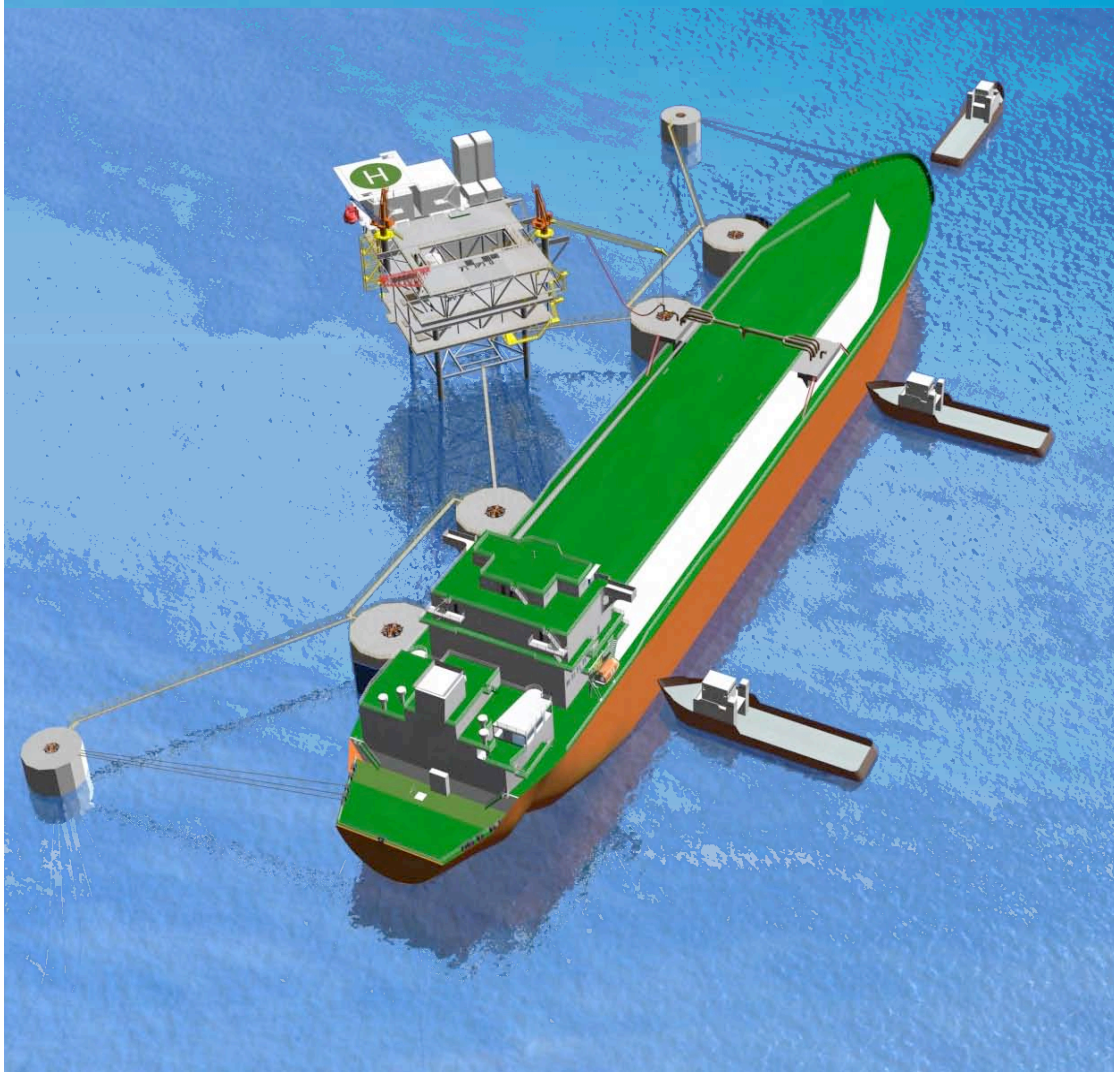
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Long Term Reliable Gas Supply for California

- **California's current natural gas supplies are inadequate to satisfy future demand**
 - ❑ California's indigenous natural gas production, and North America natural gas production as a whole, are declining
 - ❑ Demand for clean natural gas fired power generation continues to rise, increasing pressure on natural gas supply and the price of natural gas
- **Natural gas is abundant in the Pacific Basin**
 - ❑ Asia-Pacific basin contains vast reserves of natural gas that can be developed as LNG to supply California's long term energy needs
 - ❑ Currently the Pacific Basin is the world's largest regional producer of LNG, with plans to more than double the existing capacity
 - ❑ Gas in California, is priced at a discount to Henry Hub reflecting its diverse supply sources, which will be augmented by LNG supply.
- **LNG is a mature industry with an excellent safety and reliability of supply record**
- **Offshore LNG terminals are the best solution for California**
 - ❑ Preserves coastal resources
 - ❑ Remotely located – separates industrial facility from the population
 - ❑ California weather and sea conditions are well suited for offshore operations, especially in the Ventura Flats area



Clearwater Port – Project Overview



■ Remotely located

- ▢ 12.6 miles off shore Ventura County
- ▢ Benign sea state, ideal for reliable and safe offshore LNG operations

■ Maximizes use of existing infrastructure

- ▢ Located on an existing platform – Platform Grace
- ▢ Gas pipeline comes onshore at an existing industrial facility

■ Minimizes environmental impact

- ▢ Regasification does not involve seawater circulation
- ▢ Uses existing offshore pipeline corridor

■ No LNG “Inventory” included in Project

- ▢ Utilize existing SoCal storage infrastructure

■ Proven LNG operator



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Project Access Attributes

- **Low capital cost increases project flexibility**

- Capital cost of less than \$250MM versus costs in excess of \$600MM for alternative offshore applications with LNG storage
- Allows Project to be flexible with the market
- Low cost option for consumers

- **Fast track to deployment**

- 18-20 month construction period

- **Independent terminal service provider**

- Crystal Energy is not captive to its own supply source
- Contract with price competitive and reliable suppliers
- “Tolling” type model – Clearwater Port will be a terminal service provider and will not take title to LNG or natural gas processed through the facility



Important Considerations

- LNG and Gas industry values certainty and stability
 - Firm and reliable access to SoCal gas system
 - Fair and reasonable system rights
 - Gas balancing and access to storage systems
 - System upgrades based upon displacement capacity
- LNG supply for California will need to be specifically developed to meet CA gas quality specifications
 - Massive upstream investment, compared to cost of receiving terminal
 - Cost of supply reduces with infrastructure efficiency – volume business and time commitments
- LNG will be a dedicated gas supply to California
 - Captive to SoCal system (limited off-system transportation rights)
 - Increase in supply likely to dampen SoCal gas prices
- California gas supply security is enhanced by delivery of LNG directly to CA
- To be financed, terminals will require foundation customer(s) with strong credit and industry participation
 - Multiple users increase complexity of terminal operations and can increase overall cost of supply



Our Approach – Tolling Model

- Non–discriminatory terminal service provider
 - Allow customers to contract directly with LNG suppliers
- Contract with “foundation customer” to underpin project financing
 - Long term capacity commitment to project will result in a lower overall infrastructure cost (supply infrastructure and terminal receipt infrastructure) and hence a lower cost of supply
 - Greater than 60% of terminal capacity
 - 20 to 25 year time commitment
 - Increases supply security for California
 - Prefer an LNG supplier (e.g. Woodside) who has necessary reserves to supply California to be foundation customer
 - Understand business and business time horizons
 - Developing competitive supply purposely for and committed to California
 - Financial wherewithal to underpin LNG value chain investment
- Reserve remaining terminal capacity for use by gas market participants or other LNG suppliers
 - Capacity release provisions – use it or lose it
 - Any unused capacity will be available for use by other third parties who can meet terminal service use requirements
- Crystal Energy is motivated to ensure facility capacity is fully utilized



Benefits of Tolling Model

- Increases gas-on-gas competition
 - ▣ Low cost terminal, lower cost of gas supply
- Increases gas supply security and prefers most competitive LNG supply projects
 - ▣ All potential suppliers will have access to the market, not just those who develop/own LNG receiving terminals
- Allows gas customers to contract directly with LNG suppliers
 - ▣ Enhances contract flexibility, eliminates “middle men”
- Infrastructure owner does not take title to LNG or gas, mitigates market power concerns
- Infrastructure owner has a financial incentive to ensure terminal capacity is fully utilized
 - ▣ Use it or lose it approach
- Ensures most competitive supply and terminal projects are developed

